A Mussel Watch Approach to Integrate Biomonitoring in the Georgia Basin

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Abstract

Several Georgia Basin monitoring programs in the US and Canada are designed to quantify the status and trends in ambient conditions using long-term monitoring approaches. A Georgia Basin Mussel Watch approach is proposed to better integrate the biomonitoring elements of these programs. "Mussel Watch" is a monitoring approach that typically includes measuring tissue chemistry in resident or transplanted bivalves at regular intervals to establish the status and trends in environmental quality. The proposed approach would include measuring other endpoints such as biomarkers and growth to add an effects component to the monitoring. A Georgia Basin Mussel Watch Program would provide a means to focus current individual programs on a more common goal, minimize the costs of data collection, and maximize the consistency of the protocols. Other benefits to establishing a basin-wide Mussel Watch program include integration of existing programs with more cost- and services-sharing, consistency with the risk assessment methodology, more emphasis on using other tools in the environmental monitoring toolbox, and addition of previously under-utilized monitoring species. The purpose of this poster is to focus on rationale and methods for establishing a Georgia Basin Mussel Watch Monitoring Program, and to make specific recommendations for implementation.